

**ABSTRACT**

An on-chip decoupling capacitor (106) and method of fabrication. The decoupling capacitor (104) is integrated at the top metal interconnect level (104) and may be implemented with only one additional masking layer. The decoupling capacitor (106) is formed on a copper interconnect line (104a). An aluminum cap layer (118) provides electrical connection to the top electrode (112) of the decoupling capacitor (106).